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II. TWO CASES OF PAPILLOMA OF RECTUM TREATED BY EXCISION OF MUCOUS MEMBRANE, BY T. KENNEDY DALZIEL, M.B., C.M., F.F.P.S.

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SOME REMOTE EFFECTS OF APPENDICITIS.

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THE subject of appendicitis, its pathology and treatment, has for some years occupied so much attention from the profession that the following group of cases, illustrating some of the remote consequences of the affection, may not be without interest.

Whether the original affection of the appendix be catarrhal, ulcerative, or gangrenous, with or without the presence of a foreign body, it is evident that secondary results may follow from extension of the inflammation to the surrounding structures, leading to adhesion of the appendix and caecum, or of the neighbouring viscera—the one to the other. Secondary structural change may ensue from destructive changes in the appendix and adjoining caecum, or from absorption of sepsis or tuberculosis the lymphatic glands may become so enlarged as to give rise to trouble. An interesting feature in the group of cases under consideration is that the primary appendicitis had not in any of them progressed to suppuration, and had, indeed, in several been of such a slight nature as to have been overlooked, till careful cross-examination elicited facts pointing to the nature of the disease.

Naturally the most frequent cause of trouble results from adhesions, which, giving rise to colic on the slightest provocation, may render life a burden, or endanger it by leading to strangulation of a loop of intestine.

The anatomical relations of the appendix are so well known that it is unnecessary to dwell on them, though, as several of

the cases have a special bearing on the position of the omentum, it may be well to bear in mind that, especially in early life, the omentum may extend to the brim of the pelvis, and naturally come in more intimate contact with the then prominent appendix than in later life, when both structures shrink—the omentum being drawn upwards, and the appendix frequently displaced so that it may lie behind the caecum or elsewhere.

Under ten years of age the omentum and appendix, as a rule, seem to be in contact or within reach of adhesion from a mild degree of plastic inflammation. Should such an adhesion take place, the symptoms in the early stage seem to be those of slight gastric disturbance, becoming more severe as the adhesion becomes more intimate, and fibrous contraction of the omentum sets in. The ultimate condition is, that the web-like omentum shrinks and gathers itself into a firm band of tissue extending from the transverse colon to the right iliac fossa. In several of such cases which have come under my observation secondary adhesions have formed between the surface of this contracted omentum and the anterior abdominal wall, especially in the neighbourhood of the umbilicus. Such a band gives rise to great risk of strangulation or to persistent colic, especially marked—as is usual where adhesions implicate the colon—before defaecation occurs. As a rule the pain is described as of a dragging character, and in one case it was noted that during acute spasms the umbilicus was distinctly drawn inwards.

Vomiting, diarrhoea alternating with constipation, frequency of micturition, abdominal distention from accumulation of flatus, may occur at one time or another, and induce such a condition as more than warrants abdominal section.

CASE 1.

A. B., a patient of Dr. Gemmell's of Airdrie, came under my care in August, 1892, suffering from acute intestinal obstruction. In 24 hours spontaneous relief was obtained, and he remained well for ten days. He again suffered from acute

obstruction, and as he had a well-marked tumour in the neighbourhood of the ileo-caecal valve, laparotomy was performed at the outer border of the right rectus. A loop of intestine was found, caught between a rigid band, stretching from the right iliac fossa towards the epigastrium and the abdominal wall. This band consisted of a shrunken and rigid omentum, adherent to the appendix and neighbourhood. A large nodular mass was found by the right side of the promontory of the sacrum, evidently consisting of numerous very much enlarged lymphatic glands, which, from their consistence, size, and number affected, were believed to be sarcomatous, and an unfavourable prognosis given accordingly.

The patient recovered well from the operation, the function of the bowel being immediately restored. He was sent home in four weeks with the tumour mass large and easily palpable through his flaccid abdominal wall. We were gratified to learn some months afterwards that the whole of the swelling had disappeared, and that the patient enjoyed perfect health, with no indications of abdominal discomfort. No doubt the glandular enlargement was of a chronic inflammatory nature, due to an old-standing appendicitis, associated with omental adhesions.

CASE 2.

M. M'L., aged 8, a patient of Dr. Campbell's, with whom and Dr. George Middleton I saw him in August, 1894. He had suffered for two years from occasional abdominal discomfort, and on several occasions sharp attacks of diarrhoea. His acute illness started with diarrhoea and vomiting, followed by violent fixed pain on the right side, with painful defaecation of mucous and watery discharge. Tympanites and elevation of temperature to 101 degrees followed, and the boy's condition, while not alarming, showed no signs of improvement. After waiting a few days, as the pain and tenderness in the right iliac region persisted, though there was no evidence of abscess, it was deemed well to open the abdomen. An incision along the outer border of the rectus revealed a firm band of tissue stretching from the neighbourhood of the umbilicus to the right

iliac fossa. This tissue, composed of altered omentum, was remarkably firm and rigid, with a number of minor adhesions to the surrounding intestines. The band was divided and as much of it removed as possible.

The patient made an interruptedly good recovery, all symptoms of abdominal discomfort rapidly disappearing. He has since remained well, with the exception of an occasional attack of diarrhoea.

CASE 3.

G. H., a professional brother, was seen, in consultation with Dr. Samson Gemmell, in the country in April, 1894. At several periods within eighteen months there had been attacks of abdominal pain, generally lasting an hour or two. In November of 1893, however, an extremely acute attack of pain occurred, necessitating rest in bed for three days. The pain was not localized, and was not attended with rise of temperature nor abdominal distension. The acute pain lasted eight hours, and after two days in bed the patient felt so well that he left his bed only to return to it in a few hours with another severe attack of pain, attended with vomiting and hiccup. There was now some rigidity of the abdominal muscles on the right side and a tender swelling in the neighbourhood of the appendix. From this time onwards there were constantly recurring attacks of pain at intervals of a few days, and at one time only as long as three weeks.

When seen the patient was very pale and thin. The only physical sign was a distinct thickening in the region of the appendix. This swelling was ill-defined in outline, and not painful on pressure. There was no abdominal distension. In view of the persistent abdominal trouble it was decided to open the abdomen, for which purpose the patient was removed to a nursing home in Glasgow.

On opening the abdomen along the outer border of the right rectus muscle the caecum, ileum, and bladder were found firmly united by a dense cicatricial mass, to which the omentum was adherent.

After liberating the omentum the middle band of the caecum

was sought for and used as a guide to the appendix, which was found, on splitting up the cicatricial tissue with knife and scissors, lying in it like a worm in its burrow. The terminal part of the appendix was converted into a fibrous band, and seemed fixed to the brim of the pelvis. The appendix thus cicatricially contracted no doubt acted as a check on the movements of the caecum, and gave rise to the violent and recurrent colics.

The appendix was removed and the patient made an excellent recovery, with the exception that he suffered from a somewhat extensive and very troublesome neuritis in the arm and leg, coming on a fortnight after the operation. Since the operation till now there has never been the least trouble or inconvenience of any kind with the bowels.

CASE 4.

C. S., aged 13. Was seen in consultation with Dr. Whiteford, of Greenock. He was a delicate lad, who had suffered from obscure abdominal trouble for some years. In January this year he suffered from very marked abdominal pains, like colic, apparently due to obstruction of the bowels. No relief was obtained by the use of a laxative or enemata. In a few days the temperature rose to 101°, and tenderness was found in the right iliac fossa over a swelling which was not unlike a scybalous mass. I saw him twelve days after the onset of the symptoms, which had not greatly increased in intensity during that time. His pulse, however, was rapid, 130; temperature, 100°; tongue coated; breath with disagreeable earthy odour. He did not seem to suffer acutely, and had very little vomiting. The abdomen was distended, and in the right iliac fossa a nodular tender mass could be felt, apparently about 3 inches in diameter. This mass was not adherent to the abdominal wall, and had bowel in front of part of it. With the local guide laparotomy was recommended and performed over the appendix. On dividing the abdominal wall in the line of the fibres of the external oblique, the omentum was found stretching tightly over the nodular tumour mass

which lay behind the terminal part of the ileum, and consisted of a mass of chronically inflamed lymphatic glands. The omentum was firmly fixed into the right iliac fossa and thence radiated to the transverse colon. It was abundantly evident that the ileum was firmly compressed between the mass of glands, which equalled in size a man's fist, and the tense and hardened omentum. The omentum was divided between a series of ligatures. The appendix was evidently embedded in the cicatricial tissue at the seat of the omental adhesion, and as the boy's condition was very bad it was not deemed advisable to disturb parts in attempting to remove it, more especially as there was no evidence of active local mischief.

After operation he rallied fairly well, and some flatus and faeces escaped from the bowels. Next day, however, he vomited some blood, and on attempting to raise himself in bed suddenly died.

CASE 5.

D. T., aged 7 years. Had suffered for 3½ years from recurrent colic, and was seen in consultation with Dr. Smith, of Lenzie. The patient, a delicate-looking girl, had rarely been free from severe abdominal pains, only once had such an interval as three weeks elapsed. At times vomiting had occurred, and in the earlier days some bladder irritation, so that the case was looked on as a case of distension of the bladder. An area of dulness formed under the umbilicus, through which pus discharged for a time. No relief, however, followed though all sorts of sedative and carminative medicines were administered. The mother was quite decided that at the beginning of the illness pain and tenderness were most marked to the right of the umbilicus.

When seen the abdomen was not distended, indeed there was nothing apparently wrong. On palpation, however, it was evident that the abdominal wall was more rigid on the right side than on the left of the umbilicus. During a spasm of pain it was observed that the umbilicus was indrawn. The colic was ever most troublesome previous to defaecation.

On 20th December, 1897, assisted by Drs. Russell and

J. B. Anderson, the abdomen was opened and the omentum found attached to the neighbourhood of, but not directly to, the appendix, also very firmly adherent to the umbilicus. The omental tissue was firmly fibrous in structure. The adhesions to the umbilicus could only be freed by division, which was done between ligatures, the greater part of the omentum being thus removed.

The child has since made excellent progress. Temperature normal, and the pain quite gone.

While the importance of adhesions as a cause of abdominal pain and colic is well recognized, it is of no less importance to determine as far as possible what are the probable causes of such adhesions, and in the absence of tubercular disease, tumours, or of pelvic inflammations in connection with the female generative organs, it seems not improbable that the great proportion of peritoneal adhesions will be found associated with old-standing appendicitis.

The glandular enlargements are further of much interest. In acute cases of appendicitis, no doubt, the lymphatic glands are implicated, but, as elsewhere in the body, the local inflammation and its consequences masks the glandular inflammation. In subacute forms of appendicitis, however, as for example in the chronic ulcerative type, such glandular enlargement may assume considerable importance, and may even be readily mistaken for malignant tumour at the ileo-caecal valve or neighbourhood. Especially is this the case when partial obstruction takes place from pressure on the ileum by the projecting mass of glands.